COLONY OF THE GAMBIA.

Annual Report of the Department of Agriculture, for the year ending 31st May, 1944.

This is the fifth annual report to be submitted in war-time and it is again presented in an abridged form.

SECTION I.

Agriculture in the Colony and Protectorate.

Meteorology.

1. *Weather.*—Total rainfall for the year 1943 was some two to three inches above average, figures for two representative stations being:—

Cape St. Mary	49.92 ins.
Yoroberi-kunda	40.52 ins.

Throughout the Protectorate rains were adequate and for the most part well distributed. Overwet conditions in August—September however depressed the yield of the dry grains in MacCarthy Island Province and in Upper River Province and a late rain did further damage to coos crops in certain localised areas.

Food Crops.

2. *General.*—There was a complete absence of the one time usual hungry season and the harvesting of the early grain crops such as maize and finger millet found most families still holding supplies of the previous season's grains.

3. The 1943 growing season was on the whole satisfactory but localised adverse conditions in the Eastern half of the Protectorate affected the total Protectorate food surplus which has fallen short of the previous year's figures. Thus although the Protectorate as a whole will be self supporting, the surpluses will not be sufficient to meet the total requirements of the unproductive and urban area of Bathurst.

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4. The Upper River Province, which produces the greater part of the groundnut crop, is short of food but this is being largely met by assistance from the neighbouring MacCarthy Island Province.

5. *Dry grains.*—As mentioned above, overwet conditions in the MacCarthy Island Province resulted in heavy weed growth and some disease in the main crop millet. Increased production can however be recorded in the two Lower River Provinces and in particular, in the Eastern Districts of South Bank Province.

6. *Rice.*—Production showed a very welcome increase in the main rice growing areas comprising the Eastern Districts of North and South Bank Provinces and the Western Districts of MacCarthy Island Province where excellent crops were harvested. In Upper River Province abnormally high river floods caused a complete failure of the crop in many of the deeper swamps.

Export Crops.

7. *Groundnuts.*—The 1943—44 buying season opened in November with the fixed price of £8 13 4 per ton of undecorticated nuts at Bathurst and £8 0 0 per ton at all other buying stations. Comparable figures for 1942—43 were £6 0 0 and £5 10 0 respectively.

8. The target figures for production was 40,000 tons of undecorticated nuts but actual purchases only just topped 30,000 tons. Thus although production showed a marked increase on the previous season's figure of 21,000 tons, it fell considerably short of the target figure.

9. The following reasons can be given for the short-fall:—

(*a*) The number of strange farmers coming into the Gambia did not reach expectations. In the previous seasons of the present war, alien strange farmers had been discouraged but in the season under review the strangers tax was reduced to the pre-war level. However only 3,205 alien strange farmers came in aganist an estimated figure of 5,000.

(*b*) The infiltration of French nuts was again on a comparatively small scale. Normally, infiltration is expected and is natural from neighbouring villages just

across the boundary and in some previous seasons (pre-war) nuts from this source have reached as much as one third of the Gambia export figure. This year not only was the Senegal crop poor but any movement of nuts across the boundary was actively discouraged by the neighbouring authorities.

(*c*) Rightful pursuance of our aim of self-sufficiency in food limits the capacity of the local population to produce export crops and although we are able to report a return to the land of much of the civilian labour previously employed on construction work, we had perhaps overestimated that capacity when one takes into account the previous two years export figures of only 21,000 tons and 18,000 tons.

10. The cleanliness of the crop and freedom from adulteration was very satisfactory but the percentage of bad kernels was higher than usual due to localised overwet conditions.

11. The following quantities of groundnuts were exported during the calendar year 1943:—

Undecorticated nuts	...	12,933 tons valued at	£99,435
Decorticated nuts	...	4,841 ,, ,,	£57,911
		Total value ...	£157,346

12. *Palm Kernels.*—At £6 10 0 per ton Bathurst, there was no change in the price offered and production of this, always a minor export, has been disappointingly low. Production during the year as against the actual amount exported given below, approximated to 300 tons as compared with an average annual export of 645 tons over the previous ten years.

13. Reasons for the decline in production are given in paragraph 12 of my last year's annual report. Propaganda to stem the decline in production is being vigorously pursued and encouragement has been further given by the announcement at the end of the period under review of an increase in price to £10 10 0 per ton in Bathurst.

14. The following quantity of palm kernels was exported during the calendar year 1943 but see also paragraph 12 above.—

Palm Kernels ... ... 157 tons valued at £1,320.

15. *Other Minor Exports.*—The following quantities of beeswax and hides were exported during the calendar year 1943:—

Beeswax	...	...	49,036 lbs. valued at	£3,581
Hides	...	...	877 cwts. ,, ,,	£1,974

Pests and Diseases.

16. *Locusts.*—The Desert Locust—Schistocerca gregaria was present in the Gambia in December and January. Many swarms were reported but no breeding took place. Much damage occurred to dry season gardens in the North Bank Province and in many places fruit and some forest trees were denuded. The swarms appeared mostly from the North later returning in that direction.

17. *Aphis Attack.*—Aphis sorghi did considerable damage to guinea corn crops in MacCarthy Island Province and Upper River Province. The burning of the old roots and crop rotation are being recommended as preventative measures.

SECTION II.

Work of the Department of Agriculture.

18. The policy of the Department has been clearly defined in previous reports and present emphasis continues to be placed on the necessity for self-sufficiency in the matter of food.

Food Production.

19. *Rice.*—In pursuance of the recommendations made by Messers. Rae and Roddan to whose reports reference was made in my last Annual Report, a free grant of £15,250 has now been made under the Colonial Development and Welfare Act to cover the establishment of a Rice Station. The scheme is entirely dependent upon the appointment of a Rice Officer and until such an appointment is made little or no progress can be recorded.

20. Alternative sites for the station have been selected in the main rice growing areas in the eastern portions of North Bank and South Bank Provinces and a site at Jenoi near Pakali N'Ding would appear most suitable. I consider however that the final choice should be left to the Rice Officer when appointed.

21. Of the 1,000 bags of improved rice seed ordered from Sierra Leone only 116 bags materialised and these were used to

swamp selected areas in the Upper Baddibu District of North Bank Province. This district is showing good progress in rice cultivation and the old depressing factor that rice production is purely women's work is being broken down, the men taking an active part in the clearing and planting up of the more fertile mangrove areas.

22. Of the Sierra Leone introductions, 'Lead' proved the most popular.

23. Minor works in the form of improved causeways, bridges etc. are being considered with a view to opening up the more suitable swamps and the construction of a bridge at Dankunku has brought some excellent rice land into cultivation.

24. *Other Food Crops.*—At the Department's Experimental Farm at Yoroberi-kunda, the following food crops were included in the experimental programme:— guinea-corn, bulrush millet, finger millet, cassava, pigeon pea, green gram and cow peas.

25. *Vegetable Production.*—Some 144 lbs. of imported seed were distributed as against 200 lbs. in the previous season. These quantities are in addition to the seed produced on the Department's farms and gardens. Although the total amount of seed issued shows a decrease, there was a definite increase in vegetable production. This is due to the fact that previously all seed issues were free but in the season under review, a charge was made for seed issued in those areas where gardening had become fully established. This obviated wastage of seed and the seed issued was planted by keen gardeners. On our own farms and gardens, we have also developed the raising and issue of vegetable seedlings which again is economical in the use of seed.

26. The cultivation of onions as a dry season garden crop has been most popular and has shown rapid progress. The varieties issued were Sutton's Tropical and a variety obtained from Madeira.

27. *Vegetable Marketing.*—The disposal of produce has been further assisted by the inauguration of a River Marketing Scheme made possible by the appointment of a Transport and River Marketing Officer.

28. At Georgetown, the Department has supervised the purchase and grading of vegetables over the scale. They are packed and consigned to the Controller of Supplies through the

River Transport and Marketing Officer who pays for the goods on the spot. Packing slips are enclosed and these are returned with details of weights and condition of vegetables and containers on arrival. Not only has this given us valuable data as to shrinkage and suitable containers but it has enabled us to instruct growers as to which are the most suitable vegetables to produce.

29. Purchases are made by the officer during the course of the River Boat sailings at the principal wharf towns and include in addition to vegetables, fruit, poultry eggs etc. During seventeen river sailings since the inauguration of the scheme, produce to the value of £613 has been disposed of enabling the people of Bathurst to buy first class produce at very reasonable prices.

30. In addition to the above scheme, the Controller of Supplies has continued to assist the local producer by arranging the sale of vegetables brought direct to his office.

31. *Fruit Trees.*—3,024 fruit tree seedlings and grafted plants were distributed free of charge to individuals for compound planting. These plants were raised at the Department's Nurseries at Cape St. Mary. Smaller nurseries are being developed at our stations at Yoroberi-kunda, Bulok, Berending and Basse.

32. There is still a demand for ornamental plants and trees and 5,408 were distributed during the year.

Local Industries.

33. *Soap Manufacture.*—Good quality soap continues to be manufactured both on a small factory basis and as a cottage industry. The product of the former is more expensive than the soap imported from Nigeria and naturally finds difficulty in competing with same when the latter is available. The interests of the producers in this respect are being watched.

34. *Beeswax.*—A scheme for developing the beekeeping industry has been submitted to Government as a result of the following recommendation of the Select Committee of the Legislative Council on the Draft Estimates for the year 1944:—

> " That the Senior Agricultural Superintendent be asked to explore the possibilities of increased development of the beekeeping industry without interfering with the more urgent activities of his Department, and if this prove feasible to ask for such funds as he requires ".

Owing to depleted staff, the scale of a operations must necessarily be limited but the scheme envisages the establishment of two Goverment apiaries, the distribution of double chambered hives and the appointment of two African instructors.

35. *Tomato Puree Manufacture.*—Government has ordered a small plant for the manufacture of puree from surplus tomatoes during the seasonal periods of glut. The stored puree will be a valuable addition to Bathurst diet in the rains when there are signs of vitamin defficiency.

Maintenance of Fertility and Animal Husbandry.

36. *Mixed Farming.*—The depressing factor of cattle disease in connection with the introduction of a system of mixed farming was stressed in my last Annual Report and it remains our most urgent problem. Such diseases as pleuro-pneumonia and haemorrhagic septicemia, previously of infrequent occurrence, are now only too common and must be largely attributed to the influx of trade cattle to the Gambia to meet military requirements.

37. Of the two main diseases, rinderpest is under control and trypanosomiasis can be kept under by careful management of the local breeds of cattle which are naturally resistant to infection.

38. At the present stage, in demonstrating the use of cattle in a system of mixed farming, emphasis is laid upon their value as manure makers rather than as a means to effect extensive ploughing with its dangers of overwork and a resultant breakdown to trypanosomiasis. At our Family Unit Demonstration Farms the efficient making and use of manure is the prime concern.

39. *Dairying Industry.*—Some 300 lbs. of fresh butter were manufactured at Yoroberi-kunda during the year. This is a very small quantity but a great improvement has been made in the texture and colour and with a new pack and improved transport arrangements, a high quality product is marketed. This is creditable in that the butter is produced with locally made equipment and often under very adverse climatic conditions. We have separators in stock and materials have been indented for with a view to running a series of temporary creameries operating where there are concentrations of cattle. Progress will be limited by the rate at which we can break down the conservatism of the local cattle owners.

40. *Piggeries.*—In this, its second year, the small Government piggery at Fajara has continued to make satisfactory progress. The twofold aim of the project was

(*a*) the breeding of improved stock and

(*b*) production of pork from surplus stock. (*b*) has not yet arisen as all young stock are eagerly sought by local pig keepers for breeding purposes.

41. During the period under review forty-seven pigs were sold and stock on hand at the 31st May numbered thirty-nine.

42. A boar and gilt from the first generation have been transferred to Yoroberi-kunda and have produced a healthy litter.

43. An interesting development at Fajara, has been the alternate penning of stock giving well manured plots for vegetable production in the dry season and maize and sweet potato production in the rains. Excellent crops have been so obtained and the possibility of the adoption of the system by neighbouring Jolas is being studied.

Export Crops and Produce Inspection.

44. *Groundnuts.*—As stated above, a clean crop free from excessive adulteration was marketed. The percentage of bad kernels was higher than usual and this is difficult to detect when the whole of the crop is marketed by the producer as undecorticated nuts. The quality is largely safeguarded by controlling the dates of harvesting and by the compulsory stacking of the crop clear of the ground prior to threshing but damage can occur through unexpected late rains.

45. Variety trials of groundnuts and cultivation experiments in connection with the control of rosette disease were continued at Yoroberi-kunda.

46. Some 200 tons of groundnut seed have been reserved to supplement village seed stores in meeting the possible demands of strange farmers.

47. *Rubber.*—Tapping of the few wild rubber vines (Llandolphia spp.) occuring in the Kombo Districts of South Bank Province has been revived and samples sent to the Agricultural Department of the Gold Coast were reported upon as clean and of

good grade and classifiable as Wild Rubber, Category A 'Rope and Flat Cake' Grade 1. Two hundred-weights have been purchased by Government to-date. Production can only be on a very small scale owing to the paucity of vines.

Agricultural Education.

48. An average of seven learners were in training at the Vocational Training School at Yoroberi-kunda during the period under review. It is a true reflection on our difficulties with regard to shortage of staff that five vacancies for learners remained unfilled owing to the lack of suitable applicants. The course of training is almost wholly practical class work being limited to a one hour period per day.

49. Our two Scholarship holders returned to the Gambia during the period, one from Sierra Leone where he had undergone a two year course at the Agricultural College at Njala and one from Nigeria where the holder enjoyed a travelling scholarship. A third is at present in Nigeria undertaking a one-year's travelling scholarship.

50. *Dry Season Produce Shows.*—Seven shows were held throughout the Protectorate with a total of 1,298 exhibitors staging 2,266 exhibits. Keen interest continues to be shown in these simple one-day shows and their educative value is proven by the improved quality and by the variety of the produce shown.

51. That section of the show schedules dealing with Prepared Food Products again received every encouragement and is a valuable aid to food education and in this connection, general advice on the use and value of vegetables and fruit in the diet was included in the after show speeches.

52. *Staff.*—It is with sincere regret that I have to record the death of the late Mr. Leonard Harry Saunders, Agricultural Superintendent, at Yoroberi-kunda on November 21st 1943, after a short illness culminating in black-water fever. Mr. Saunders had given invaluable service since his appointment in August 1935, and the deepest sympathy of the Department has been extended to his widow and son.

Mr. J. D. Tallantire, Agricultural Superintendent, proceeded on leave on 7th March, 1943 prior to the termination of his secondment and his return to Nigeria.

Mr. J. H. Palmer, Agricultural Superintendent, arrived in the Colony on secondment from Nigeria on 27th September, 1943.

53. The European Staff at 31st May, 1944, consisted of:—

Mr. E. W. Leach	Senior Agricultural Superintendent
Mr. J. H. Palmer	Agricultural Superintendent
Mr. J. Gordon	Agricultural Superintendent

Thus including the Rice Officer mentioned above, there were three vacancies remaining unfilled.

54. Mr. E. W. Leach was appointed an Extraordinary Member of the Legislative Council in July and later was appointed Temporary Official Member.

During the year as Senior Agricultural Superintendent, he was a member of the following committees:—

The Development Committee
The Nutrition Committee
The Kombo Development Committee
The Tree Planting Committee
The Demobilisation and Rehabilitation Committee.

55. Dr. H. A. Tempany C.M.G., C.B.E., Agricultural Adviser to the Secretary of State, paid a short visit to the Gambia from December 31st to January 2nd. Through the courtesy of the Royal Air Force, Dr. Tempany was able to visit our main Experimental Farm at Yoroberi-kunda in MacCarthy Island Province and to obtain aerial views of the proposed sites for the Rice Station.

SECTION III.

Omitted.

SECTION IV.

56. *Legislation.*—None directly affecting Agriculture was effected during the period under review.

E. W. LEACH,
Senior Agricultural Superintendent.

June 28th, 1944.

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